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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,933	09/22/2003	Atsuko Tanaka	020285A	5096
23850	7590	10/14/2004	EXAMINER	
ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP 1725 K STREET, NW SUITE 1000 WASHINGTON, DC 20006				THOMPSON, GREGORY D
		ART UNIT		PAPER NUMBER
		2835		

DATE MAILED: 10/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/664,933	TANAKA ET AL.	
	Examiner	Art Unit	
	Gregory D Thompson	2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 18-36 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) 25-27 and 30-32 is/are allowed.
- 6) Claim(s) 18-24, 28, 29 and 33-36 is/are rejected.
- 7) Claim(s) ____ is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. ____.
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>9/22/03</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: ____.

1. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

2. Claim 18 is rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 10, 13 of prior U.S. Patent No. 6,665,181. This is a double patenting rejection.

The structural limitations claimed in claim 18 are fully met by claims 10, 13 of the patent. For example, the PCB, fan coupled....intersecting the PCB, house wall standing....PCB, inlet in the ceiling wall, electronic component mounted on the PCB, pattern....component are structural limitations found in claims 10, 13. the language of a printed circuit board in claim 18, line 1 would read on the language of an electronic apparatus in line 1 of claims 10 and 13.

3. Claim 19 is rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 10-12 of prior U.S. Patent No. 6,665,181. This is a double patenting rejection.

The structural limitations recited in claim 19 are fully met by claims 10-12 of the patent.

4. Claims 20-23 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 5-8 of prior U.S. Patent No. 6665181. This is a double patenting rejection.

The structural limitations claimed in claims 20-23 are fully met by claims 5-8 of the patent. The language of electronic apparatus in line 1 of claims 20-23 would read on the language of a printed circuit board unit in line 1 of claims 5-8.

5. Claim 24 is rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 14 of prior U.S. Patent No. 6,665,181. This is a double patenting rejection.

The structural limitations claimed in 24 is fully met by claim 14 of the patent. The language of a printed circuit board unit in line 1 of claim 14 would read on the language of an electronic apparatus of claim 24.

6. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

7. Claims 28-29, 33-34 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 2 of U.S. Patent No. 6,665,181. Although the conflicting claims are not identical, they are not patentably distinct from each other because the structural limitations claimed in claim 28 are fully met in claim 2 except for a ground wire to ground the electronic component. However, considered obvious to one skilled in the art time of the invention to use the wiring pattern as a known common ground in the board art to provide a common ground between the component of an electrical system as known in the electrical industry.

Also, considered obvious to one skilled at the time of the invention that the component be a known central processing unit to process information as known in the electronic industry.

The language of electronic apparatus in line 1 of claim 33 reads on the language a printed circuit board unit in line 1 of claim 2.

8. Claims 35-36 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 10, 13 of U.S. Patent No. 6,665,181. Although the conflicting claims are not identical, they are not patentably distinct from each other because the structural limitations in claim 35 would be fully met by claims 10 and 13 except for an enclosure. However, it is considered obvious to one skilled in the time of the invention to dispose the electronic apparatus structure of claims 10 and 13 within an enclosure for protection from the environment.

As for claim 36, it is considered obvious to one skilled at the time of the invention that the inner surface of the enclosure could be flat to allow ease in mounting the board in the enclosure.

9. Claims 25-27 and 30-32 are allowed.

The cited art does not teach nor suggest the combination of the claimed structure in claims 25-27 and 30-32 specially an electronic component mounted on the board outside the housing wall.

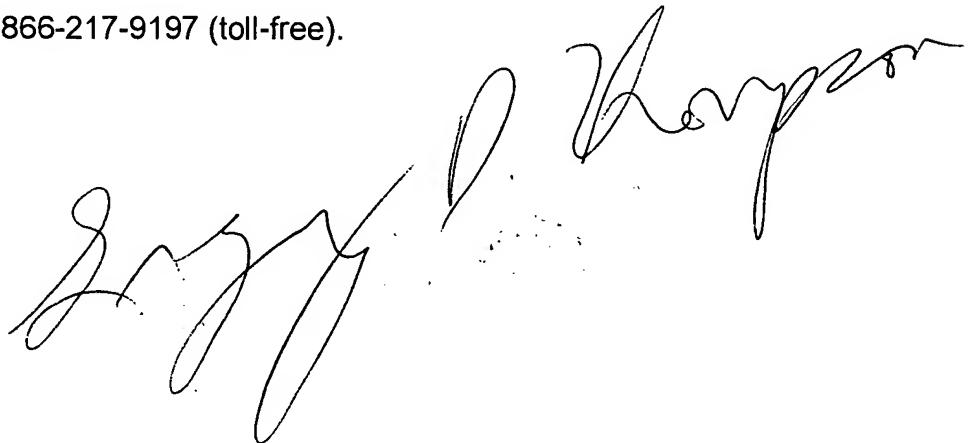
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory Thompson whose telephone number is

(571)272-2045. The examiner can normally be reached on Monday-Thursday from 6am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild, can be reached on (571)272-2800 ext. 35. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thompson/ds
09/16/04

A handwritten signature of "D. Thompson" is written twice in black ink. The first signature is a cursive "D. Thompson" and the second is a more stylized, blocky "D. Thompson".